



Missions and Means Framework

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Systems**

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681-4031 x110**

**Presented to
Dr. William Perry
January 6, 2004**

Agenda



- **Introductions**
- **Purpose**
- **Mission & Means Framework**
- **Transformation**
- **Discussion**

Agenda

- Introductions
- • Purpose
- Mission & Means Framework
- Transformation
- Discussion

Purpose

- **The Missions and Means Framework is an integrated procedure to inform the decision making required to conceive and implement transformation.**
- **Our purpose is to obtain your evaluation and feedback on the methodology. And, if you determine there is sufficient merit, enlist your advice and advocacy for fielding across DoD.**

Agenda

- **Introductions**
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- • **Mission & Means Framework**
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Military Operations and Warfighting

Deliberate Planning

Crisis Response

Requires Capability

Provides Capability

DOTMLPF* Solutions

Defines

Enables

Readiness
Training

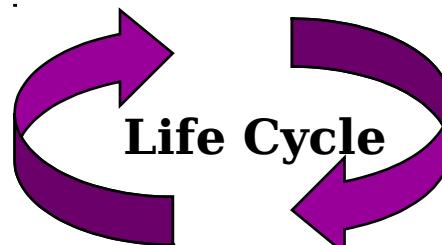
Logistics
Sustainment

Research
Experimentation

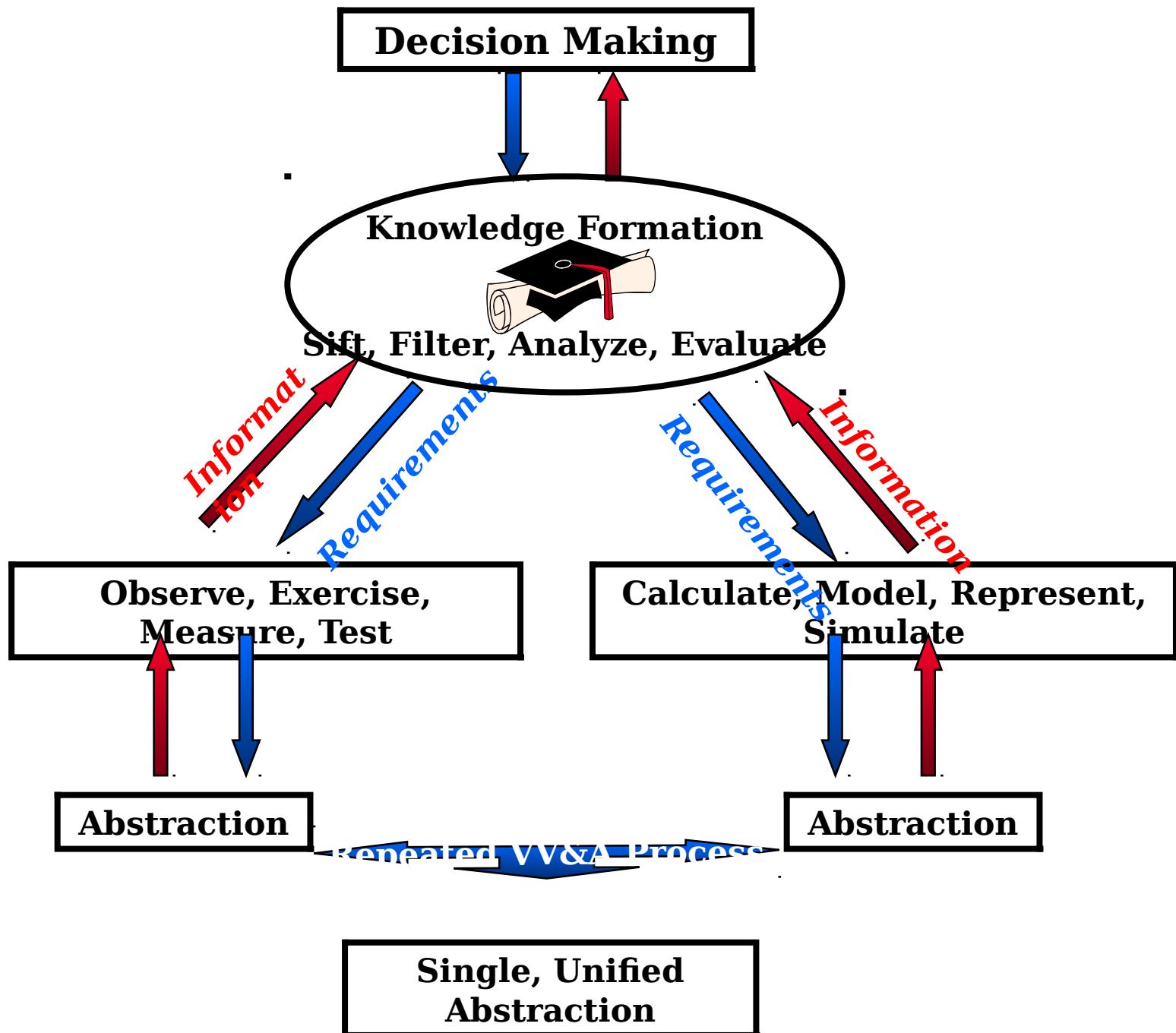
Tactics
Fielding

Analysis
Demonstration

Acquisition
Test &
Evaluation



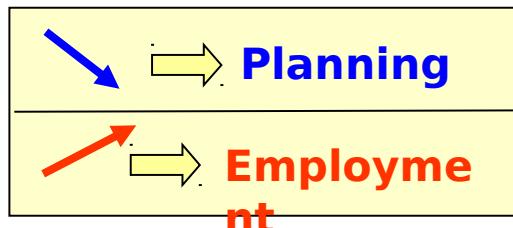
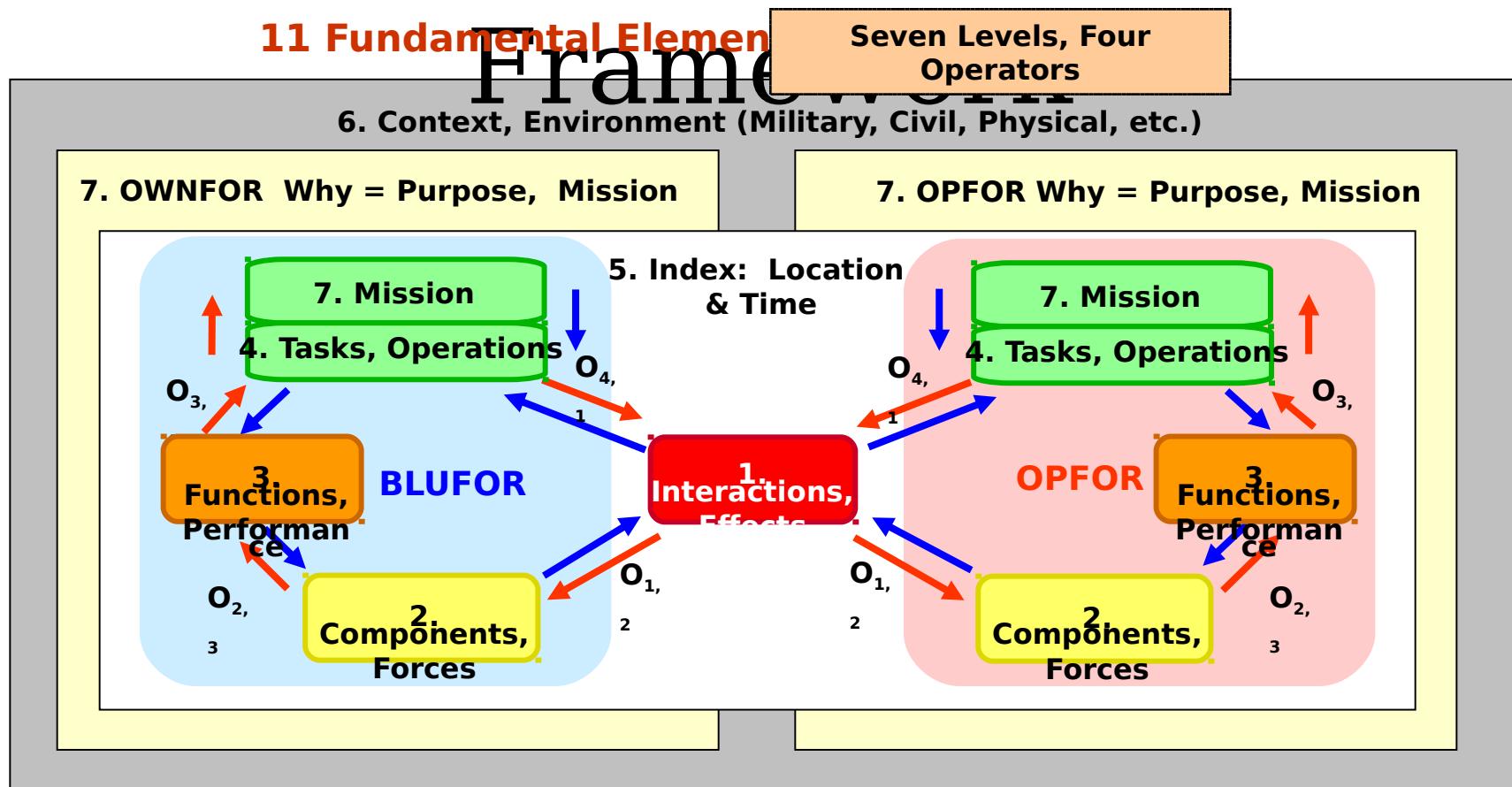
* DOTMLPF: Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities



To Make It Work ...Need Five Things

- 1. Composable Framework and supporting Procedures**
- 2. Critical Mass of End-User Content and supporting Access**
- 3. Business Model for Life-Cycle Sustainment and supporting Program Elements**
- 4. Tools, Utilities and supporting Standards**
- 5. Education, Training, and Certification**

Missions and Means



Missions and Means

11 Fundamental Elements

Frame

Seven Levels, Four Operators

7. OWNFOR Why = Purpose, Mission

7. OPFOR Why = Purpose, Mission

7. Why, Wherefore, to
What End

Missions and Means

11 Fundamental Elements

Seven Levels, Four Operators

Frame

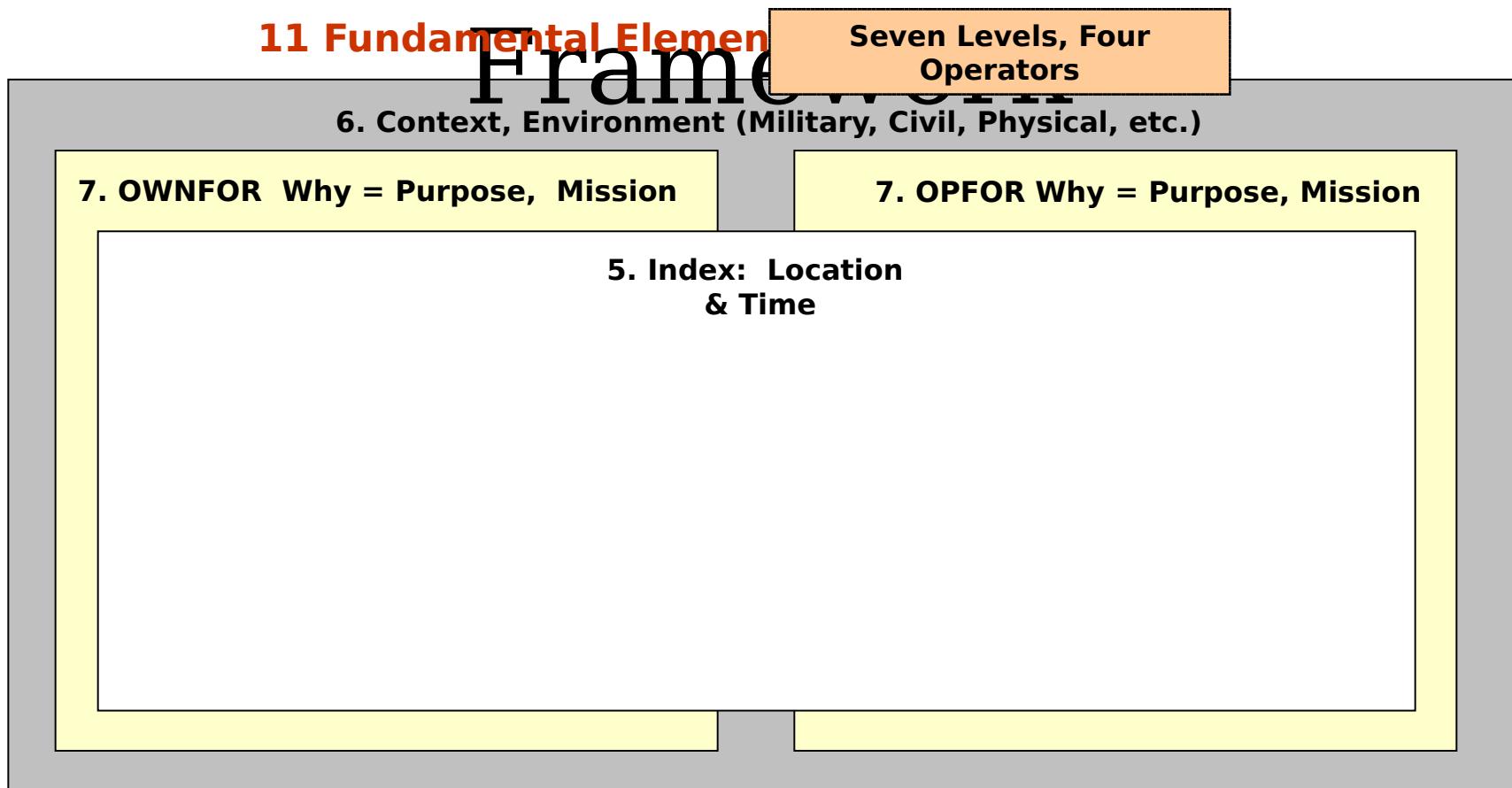
6. Context, Environment (Military, Civil, Physical, etc.)

7. OWNFOR Why = Purpose, Mission

7. OPFOR Why = Purpose, Mission

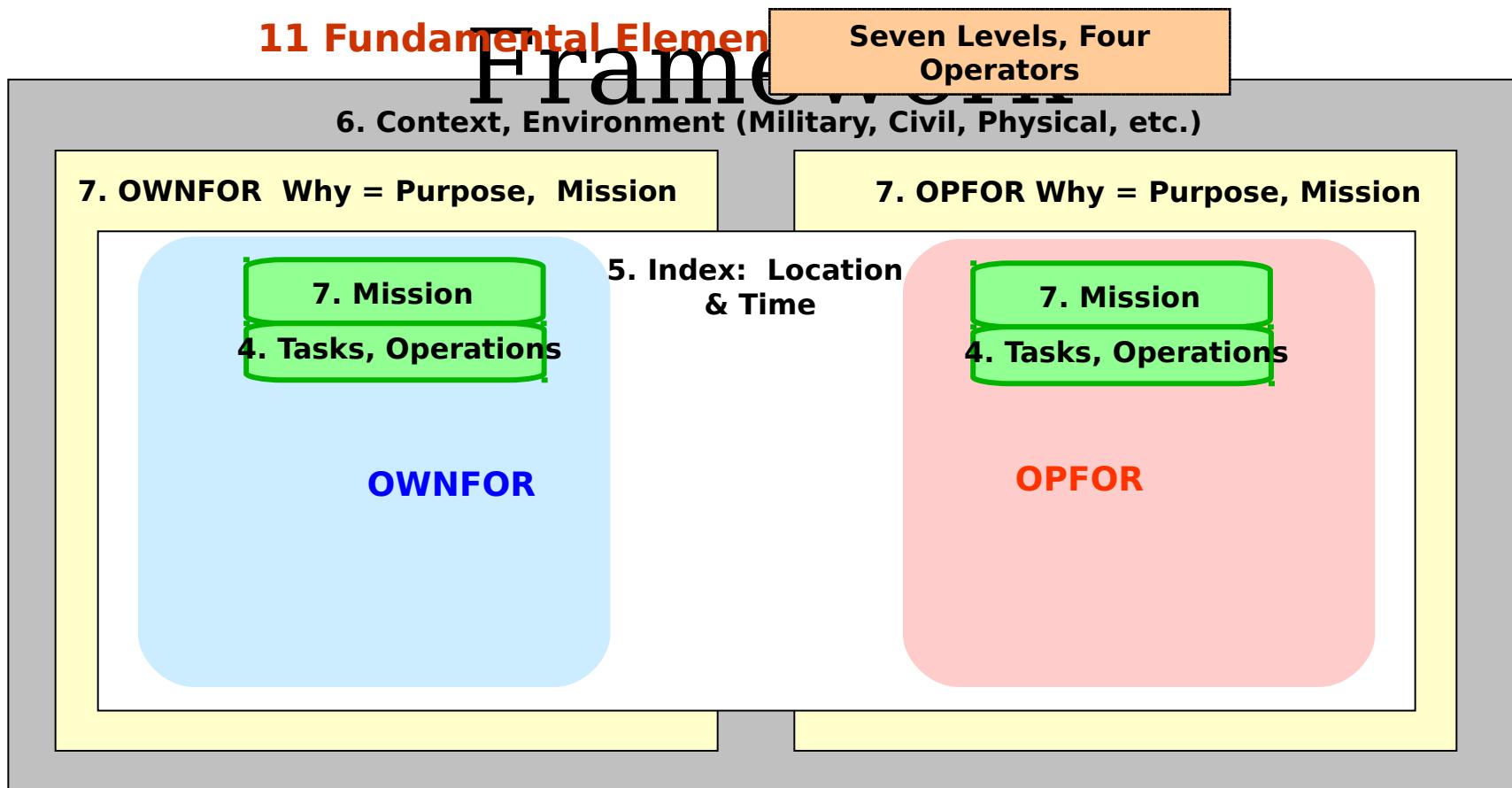
6. Under What Circumstances

Missions and Means



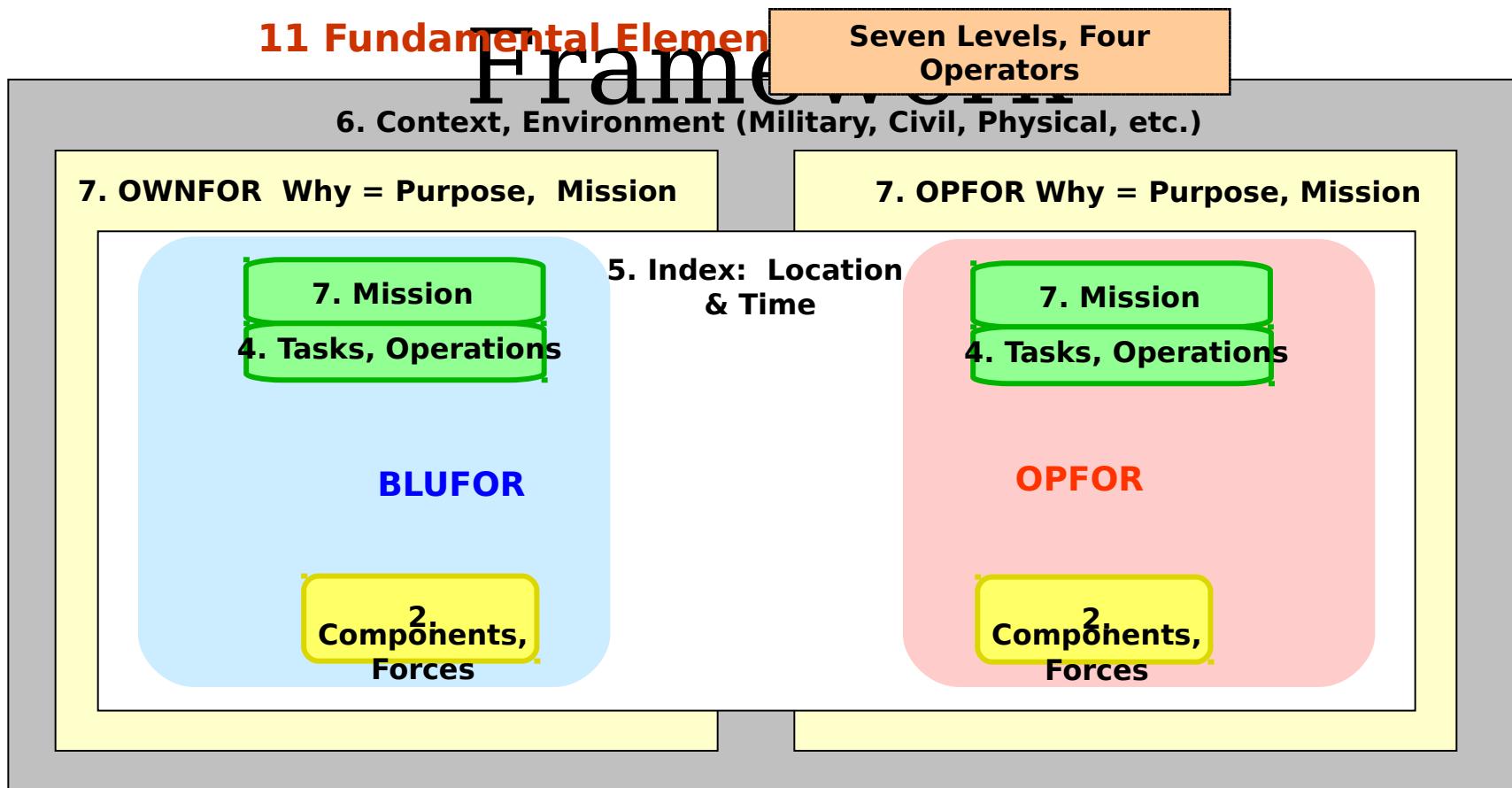
5. When and Where

Missions and Means



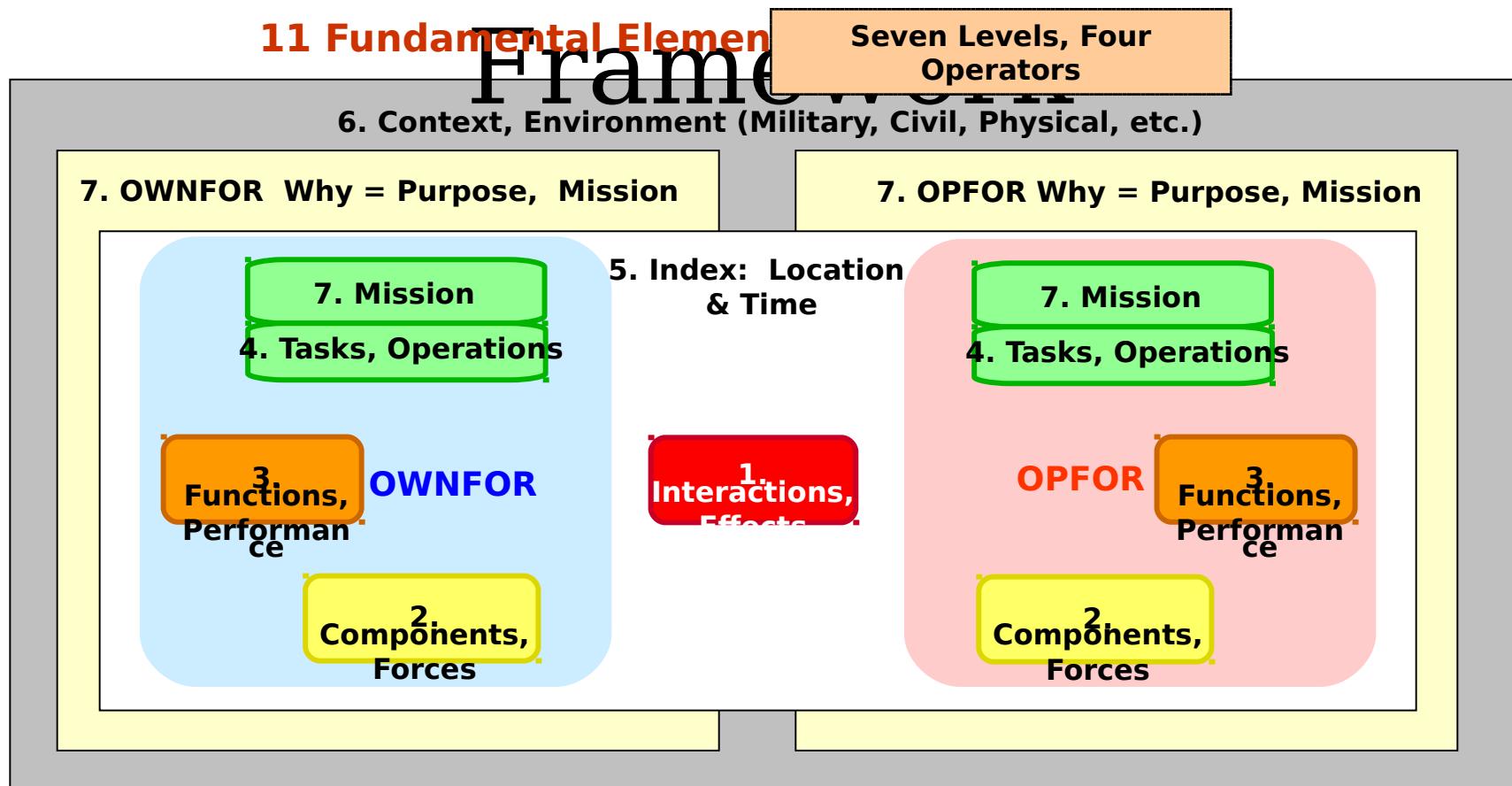
4. Activity-centric, named with a Verb “Do What” -- the Playbook

Missions and Means



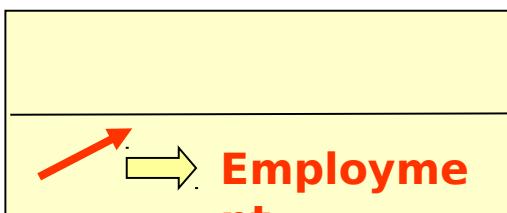
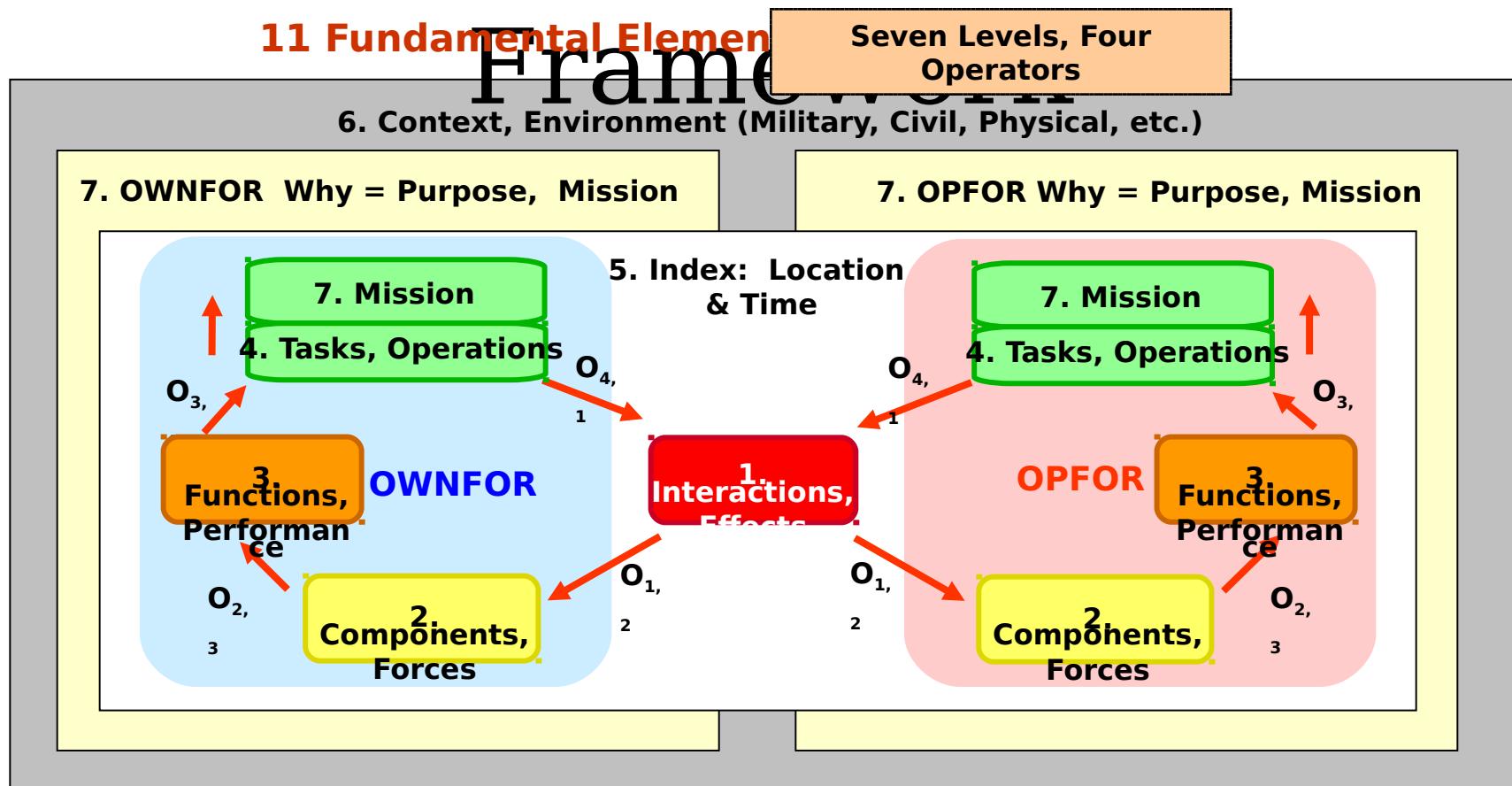
2. Entity-centric, named with a Noun “By Whom”
-- the Players

Missions and Means



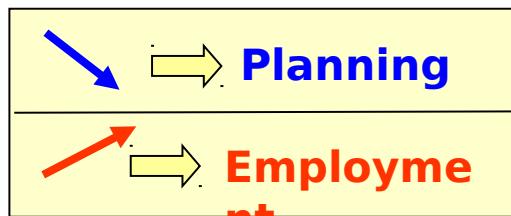
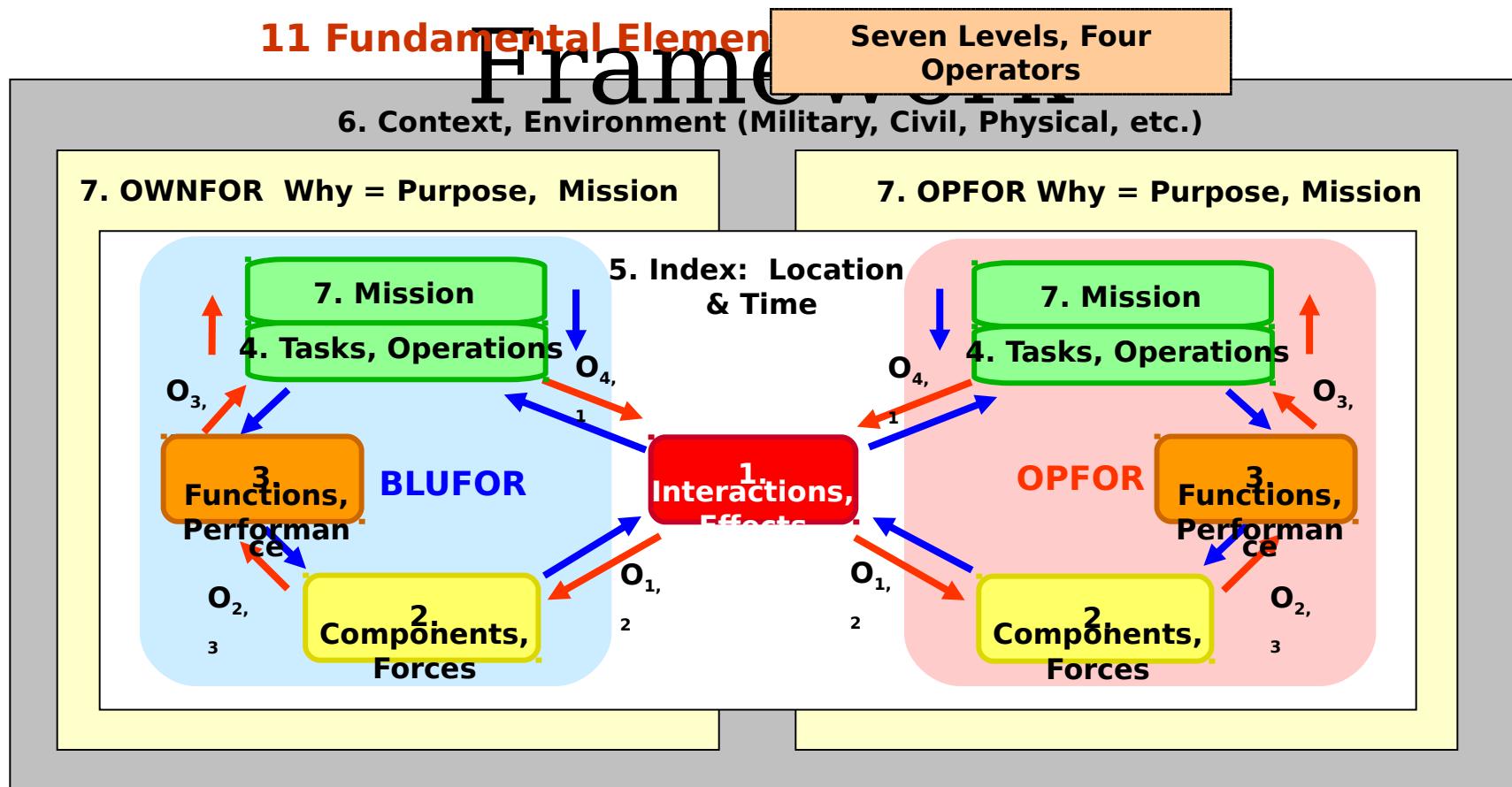
1. The Slings-and-Arrows of Outrageous Fortune -- Science-condition-dependent “How Well” -- Engineering

Missions and Means



Bottom-up, Casual, Time-forward execution and adjudication of outcomes

Missions and Means



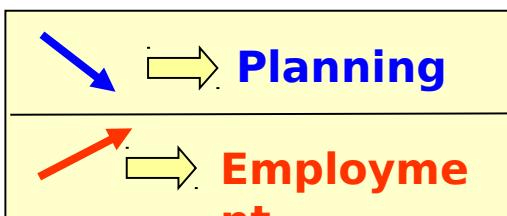
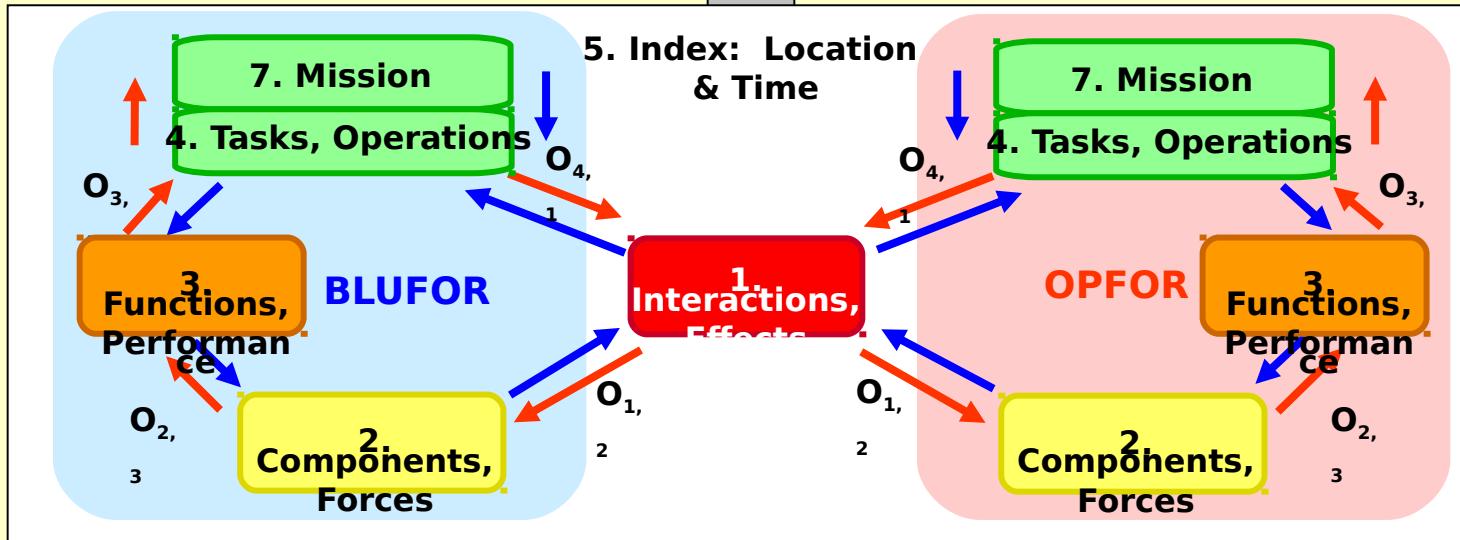
Top-Down, Concurrent
Synthesis and Decision
Making

Missions and Means Framework

6. Context, Environment (Military, Civil, Physical, etc.)

7. OWNFOR Why = Purpose, Mission

7. OPFOR Why = Purpose, Mission



Architecture defines how
Parts are assembled into
Packages

MMF Application - Situation

Road to War

- Radical elements form new government, seek to force recognition by UN as legitimate government.
- Legitimate, pro-Western Government of Orangeland is overthrown by radical elements and forced into exile.
- Majority of Orangeland's conventional military forces are loyal to new government. Orangeland invades neighboring country of Blueland.
- United States and its coalition partners believe national interests and regional stability are threatened. They take military action to drive Orangeland forces from Blueland; remove rebel government from power; restore legitimate, pro-Western government; stabilize region; and protect U.S. and coalition vital interests.
- Coalition forces have commenced offensive ground operations in the region to drive Orangeland forces out of Blueland and continue attacking to isolate rebel government leadership inside capital of Orangeland.

Current Situation

- CJFLCC intends to isolate rebel government leadership in the capital by defeating majority of conventional forces well outside the capital and preventing them from reinforcing security forces protecting the rebel leadership inside the capital.

Mission

MMF Layered View:

ST

(ST) 4 Establish military and civil conditions to legitimate government

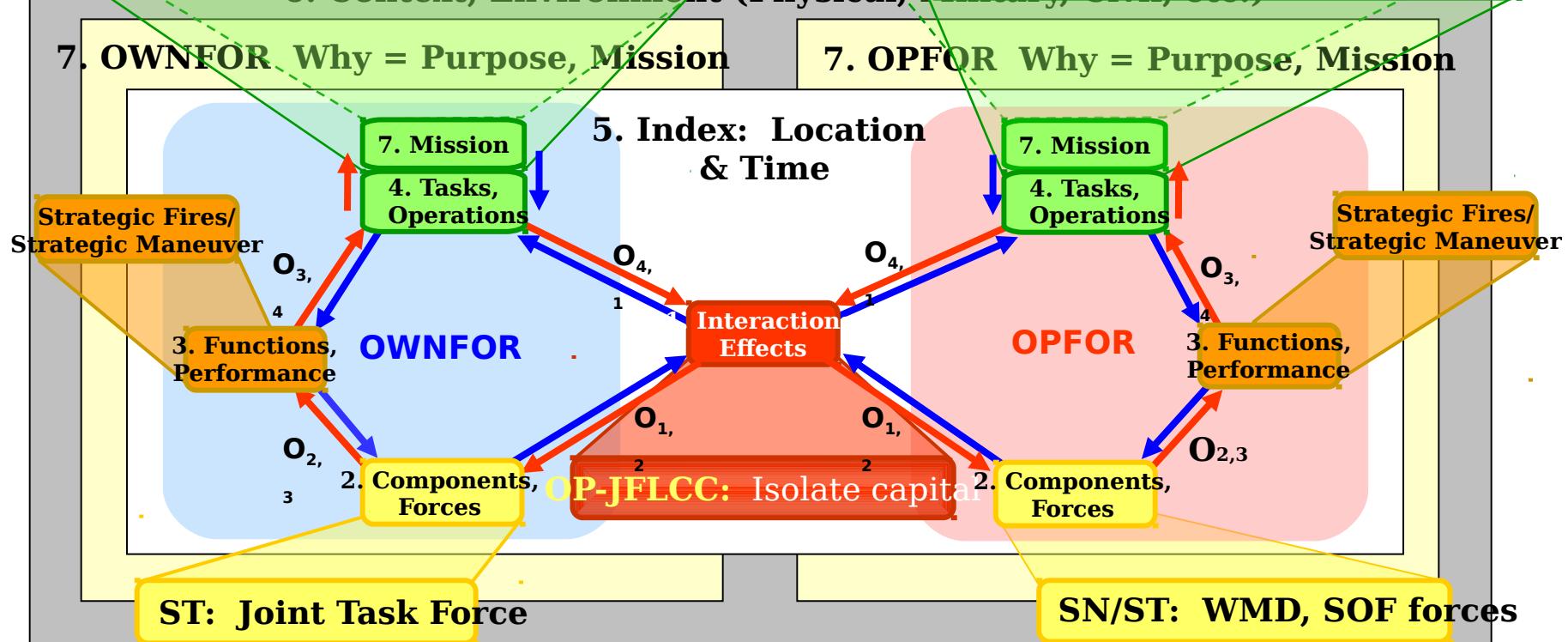
7 ~~RSF~~to 4 Establish military, civil and political com to 7 Deter use of force

(ST) ST 1.3.6 Conduct operations in depth

(ST) ST 1.3.6 Conduct operations in dep

7. OWNFOR Why = Purpose, Mission

7. OPFQR Why = Purpose, Mission



Synthesis and Employment

MMF Layered View:

SN

(SN) 4 Restore legitimate government in order to protect national interests

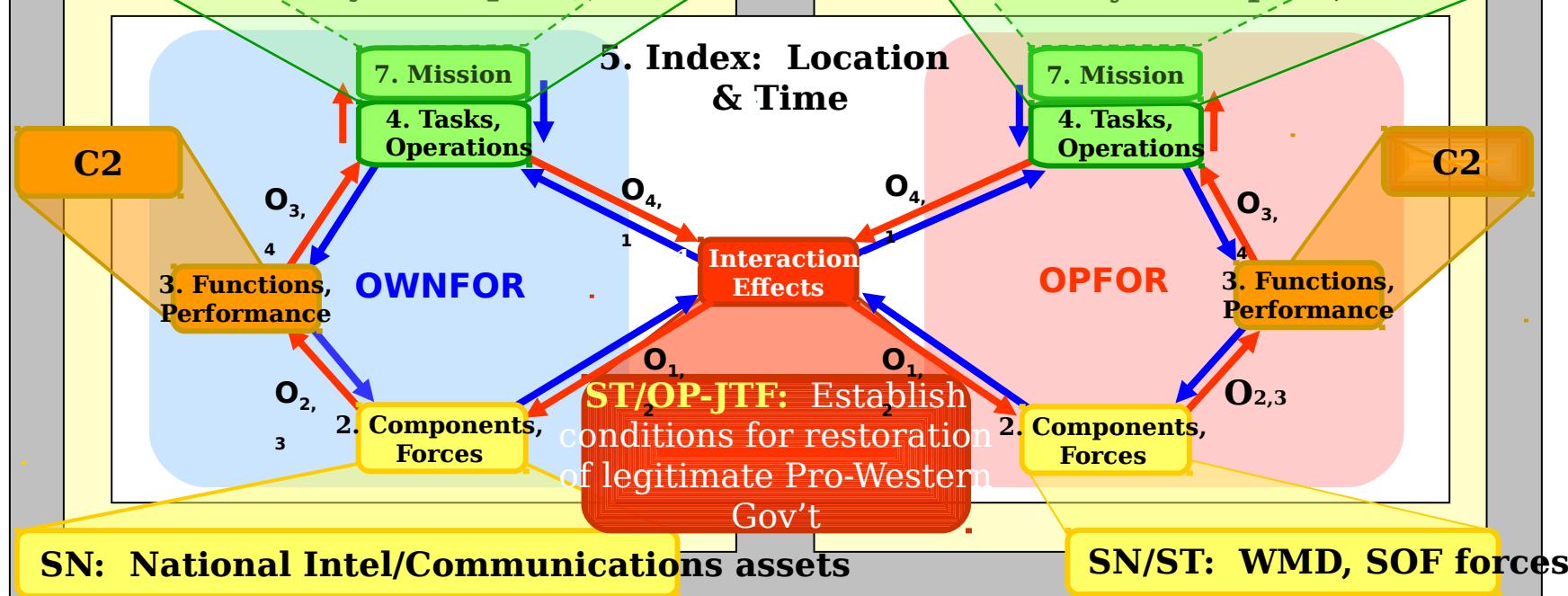
o **CS Note 4** Deter use of force in order to 7 Ensure of regime

(SN) SN 3 Employ forces, SN 5.2.4 Decide on need for military action

(SN) SN 3 Employ forces, SN 5.2.4 Decide need for military action

7. OWNFOR Why = Purpose, Mission

7. OPFQR Why = Purpose, Mission



MMF Layered View:

OP

(OP) 4 Isolate rebel government to 7 Help establish desired conditions

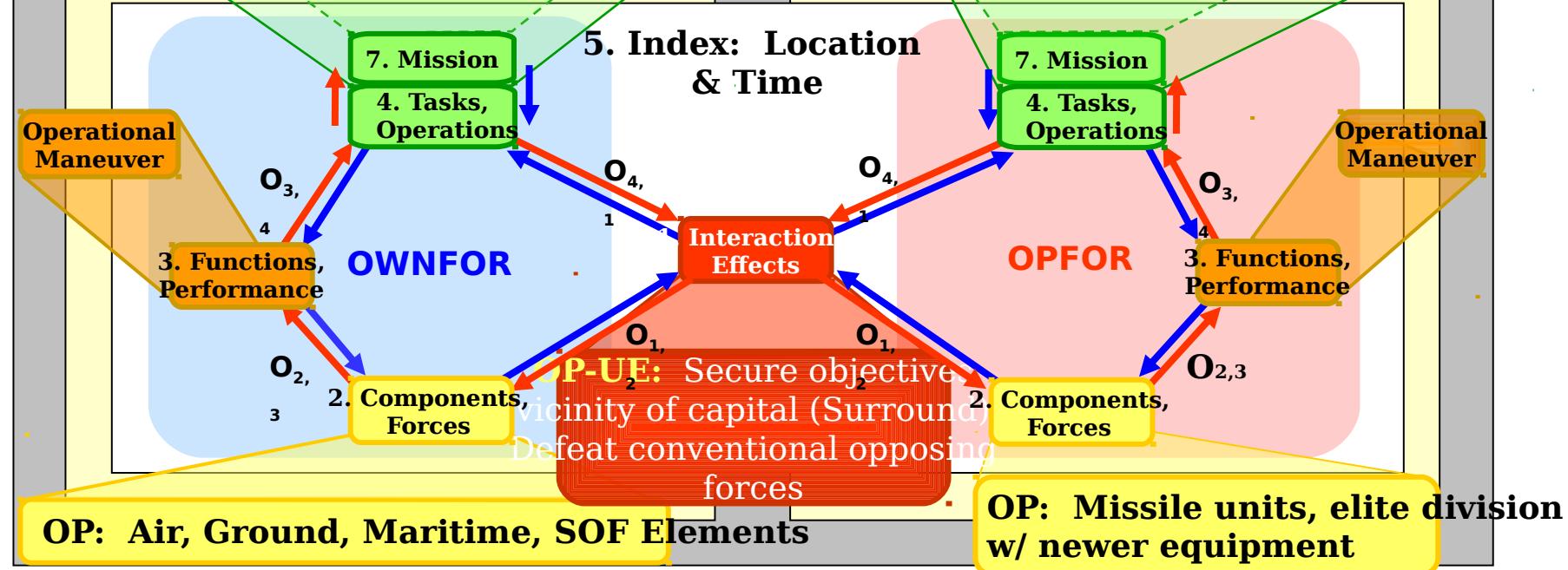
(OP) 4 Conduct synchronous ops to 7 Help establish desired conditions

(OP) OP 1.2.5 Conduct offensive operations

(OP) OP 1.2.6 Conduct defensive operations

7. OWNFOR Why = Purpose, Mission

7. OPFOR Why = Purpose, Mission



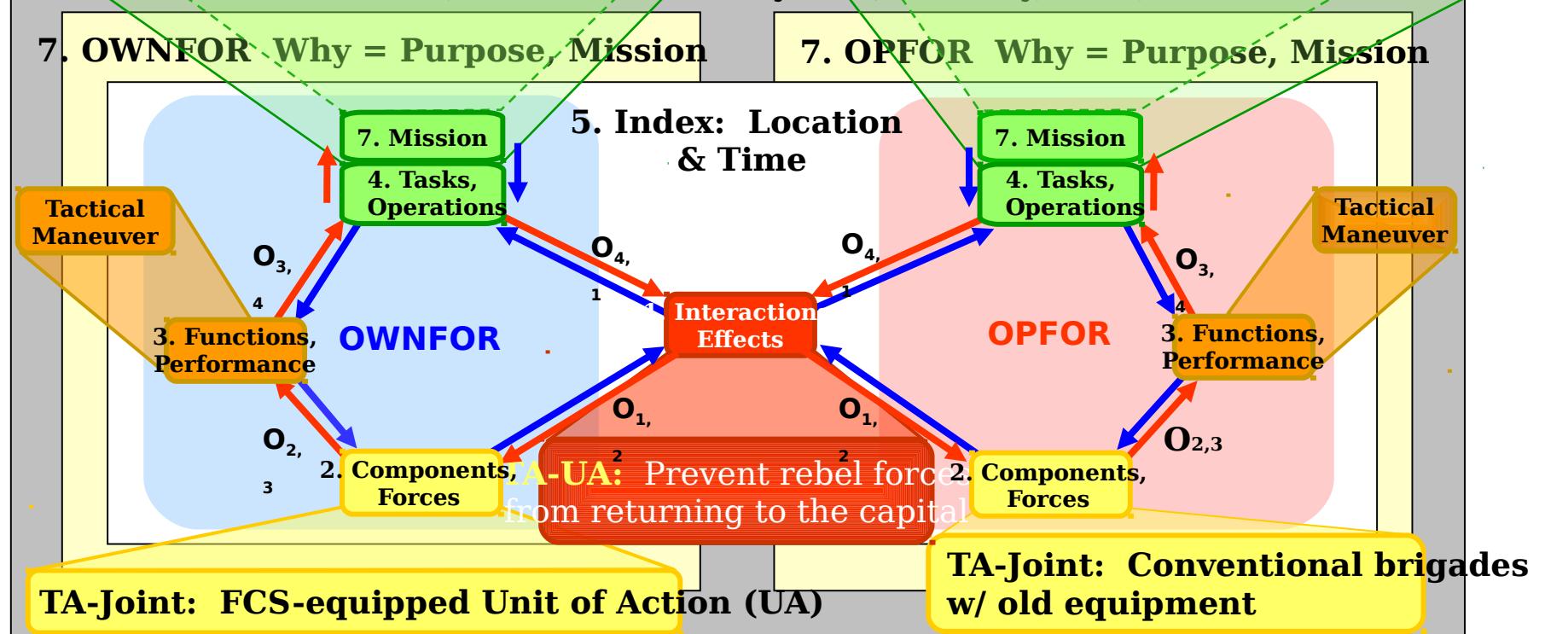
MMF Layered View: TA-Joint

(TA-Joint) 4 Prevent reinforcement of capital to
7 Help isolate rebel government

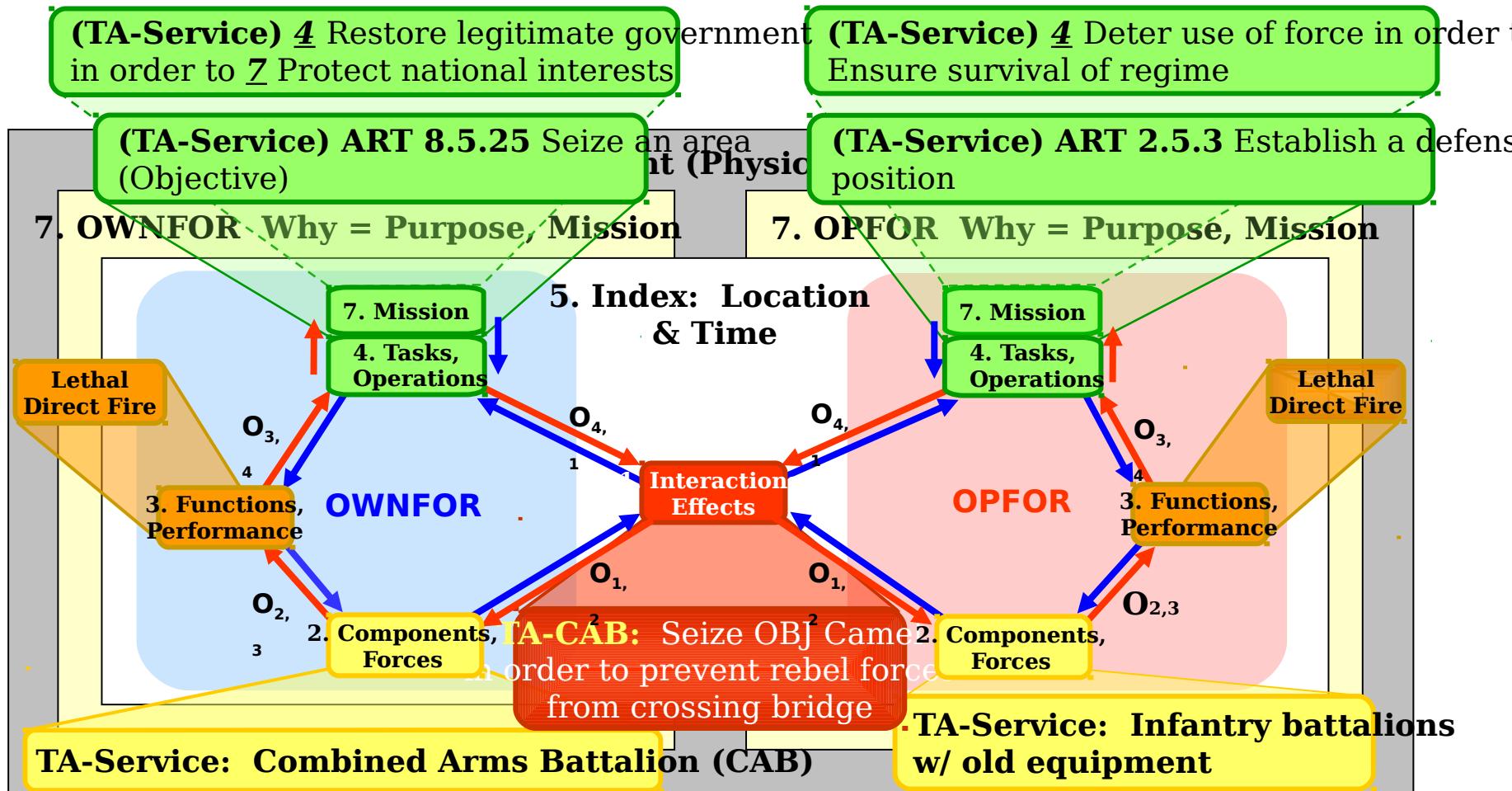
(TA-Joint) 4 Pre-position forces in key areas
7 Enable synchronous operations

(TA-Joint) ART 8.1.2 Conduct an attack
Joint (Physical)

(TA-Joint) ART 8.2.1 Conduct an area defense



MMF Layered View: TA-Service



MMF Application - Key Tasks

JTF

1. Restore legitimate government
2. Achieve air superiority
3. Destroy WMD capability
4. Facilitate control of energy centers

Operational to Tactical:
Nested Tasks

JFLCC

1. Secure capital region in Orangeland
2. Secure key oil and gas pipelines and prod facilities
3. Defeat rebel forces

UE

1. Attack to defeat rebel forces in zone
2. Conduct vertical maneuver to disrupt rebel forces
3. Secure key facilities

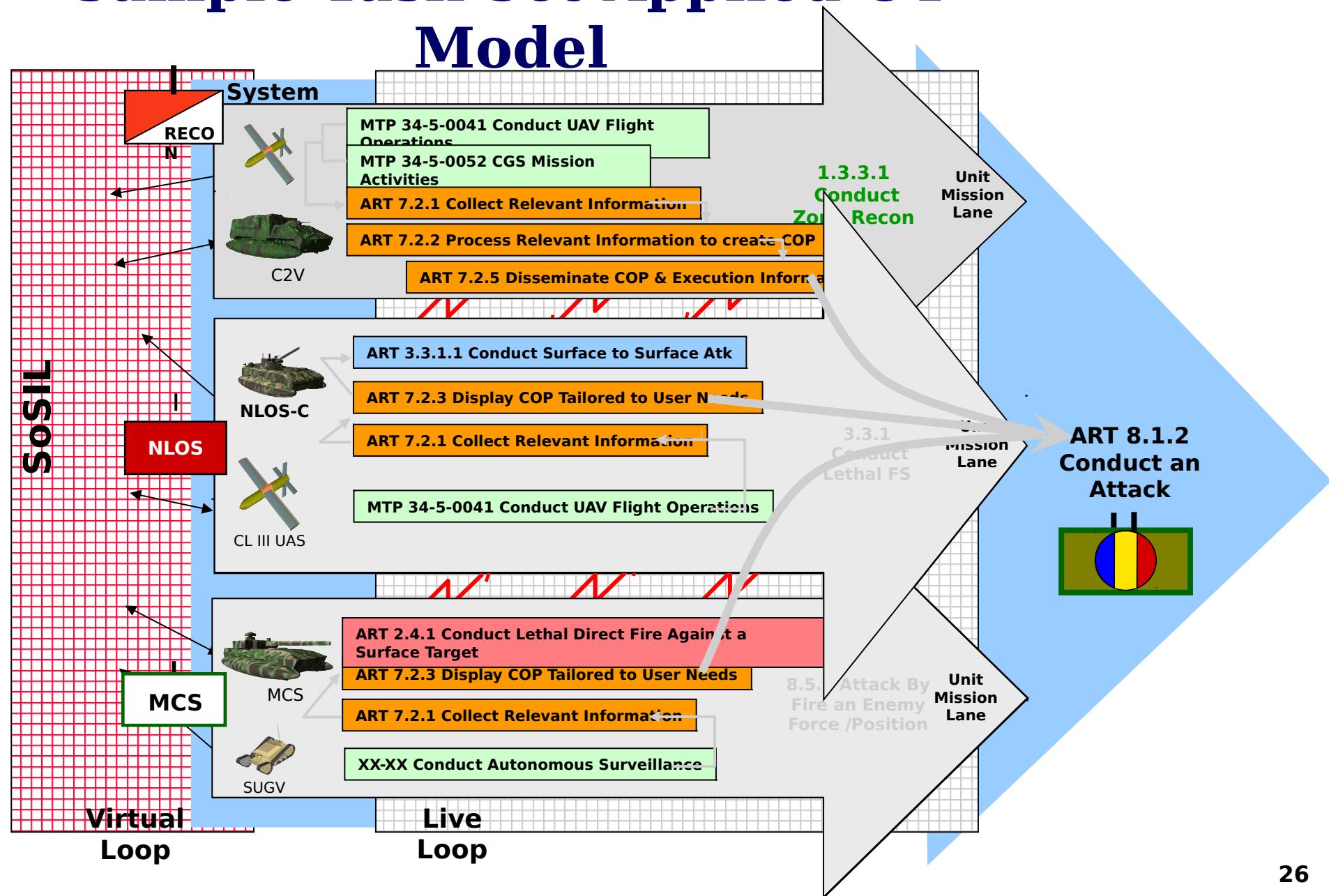
UA1

1. Secure key terrain vic OBJ CAMEL
2. Block enemy reinforcements from reaching capital

CAB2

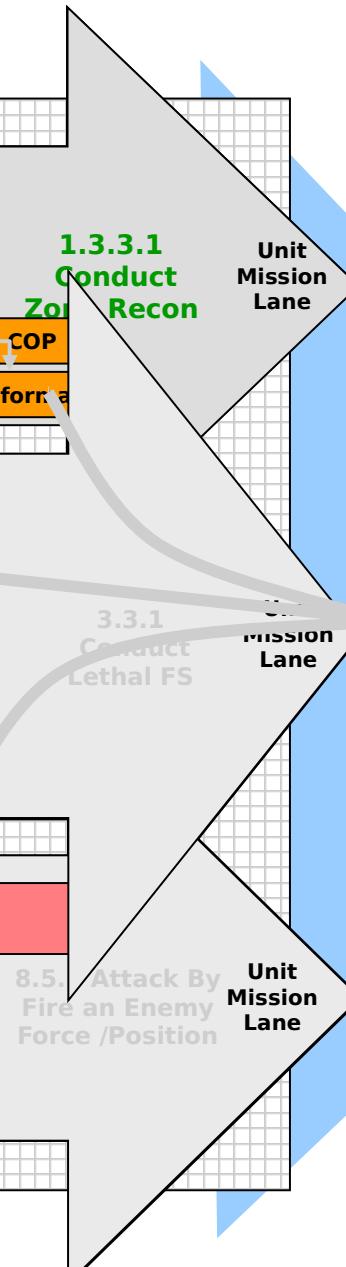
1. Secure OBJ CAMEL in order to facilitate UA2 attack on OBJ BAT
2. Attack to defeat rebel forces attempting to return to capital

Sample Task Set Applied OT Model



Virtual Loop

Live Loop



Relating Effects to Utility

Desired Conditions

Strategic MoEs:

- Legitimate government restored to power
- Territorial security of Orangeland ensured

Operational MoEs:

- **Enemy conventional capabilities defeated**
- **Leadership in capital isolated**

Tactical MoEs:

- Security forces inside capital defeated
- Capital surrounded

Attack Results:

- Conventional military forces blocked from reentering capital

Not Desired Conditions

Strategic MoEs:

- Rebel government maintains claim to power from an undisclosed location
- Rebel leaders play up “unprovoked” West attack and gain support for their government

Operational MoEs

- Capital defense corps and security forces are able to secure rebel leaders and get them out of the capital

Tactical MoEs:

- Conventional forces delay coalition forces from taking key objectives inside the capital

engaging SecDef, AAF, Attack, Rebels, Capital Defensive, conventional forces successfully reenter capitals

before main effort can reach its objective

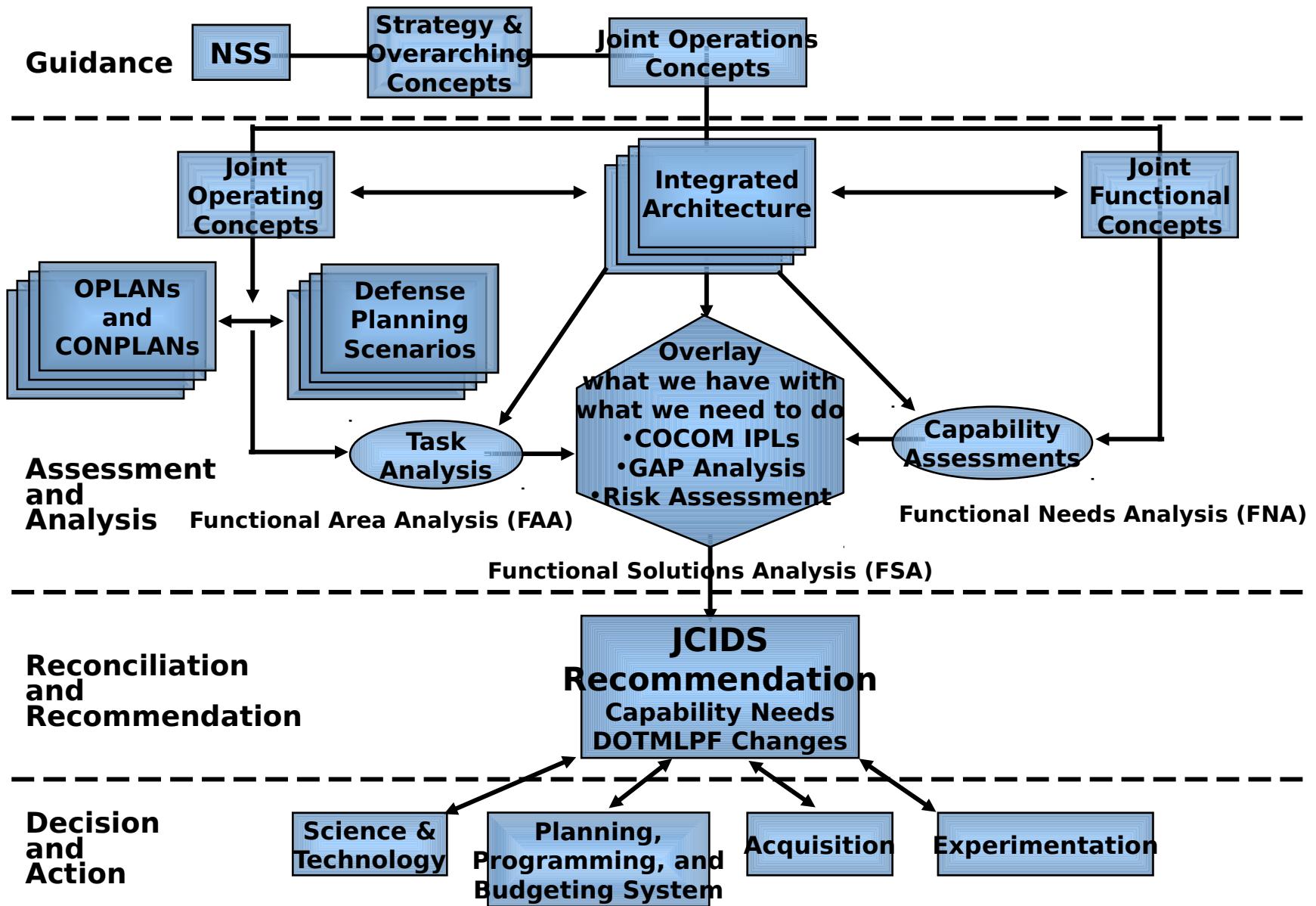
The diagram illustrates the CAB2 Attack as a cross between a successful and an unsuccessful attack. It features a central yellow starburst with the text "CAB2 Attack" in black. A blue arrow pointing upwards and to the left is labeled "Successful", and a red arrow pointing downwards and to the right is labeled "Unsuccessful". The background is divided into two quadrants: a blue quadrant on the top-left and a pink quadrant on the top-right.

Starting Conditions

Agenda

- **Introductions**
- **Purpose**
- **Mission & Means Framework**
- • **Transformation**
- **Discussion**

CJCSI 3170 (JCIDS)

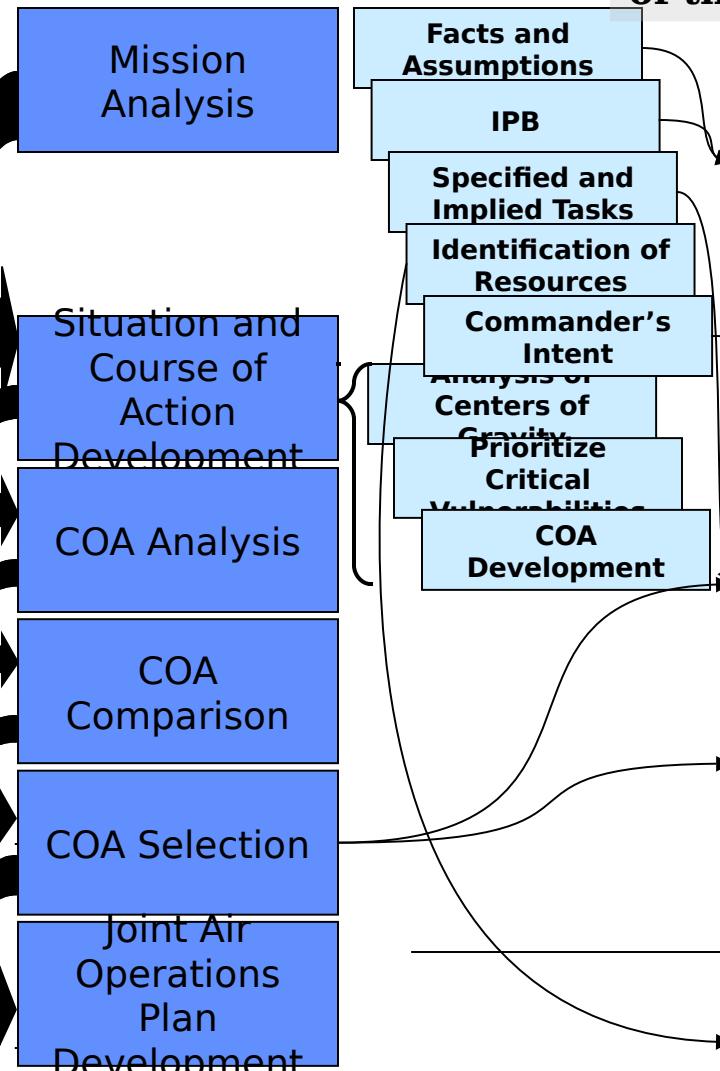


Warfighter **Visualizes** the operation and capabilities required to accomplish mission.

Mission Received

Warfighter/Rep.

MMF prompts capture of the elements below:



MMF enables warfighter to **Describe** vision using framework to ID key elements and tools to capture elements in data form.

Analyst/Engineer

Airman's Mid to Long Term Planning

Figure III-20

Warfighter **Visualizes** the operation and capabilities required to accomplish mission.

Mission Received

MMF prompts capture of the elements below:

Warfighter/Rep.

IPB/Estimate Process	Combat Assessment
----------------------	-------------------

Commander Intent	JFC Guidance
------------------	--------------

Specified, Implied, Essential tasks	Target Development
-------------------------------------	--------------------

COA analysis Wargaming process	Weaponeering Process
--------------------------------	----------------------

Task Organization & Request for higher support	Master Air Attack Plan & ATO Production
------------------------------------------------	-----------------------------------------

Environment:

Physical, military, civil conditions in the AO?

Purpose:

What is the desired effect?

Tasks:

What actions are required to achieve

Capabilities:

Required to enable task performance to standard.

Components:

Units (equipment and people) that have required

MMF enables warfighter to **Describe** vision using framework to ID key elements and tools to capture elements in data form.

Analyst/Engineer

Condition descriptions from UJTL

Condition descriptions from UJTL

AUTL tactical mission tasks or text

UJTL for Operational Lvl Tasks

UJTL, AUTL, MTP, STP tasks in data form

UJTL, AFTL, UNTL, EBO

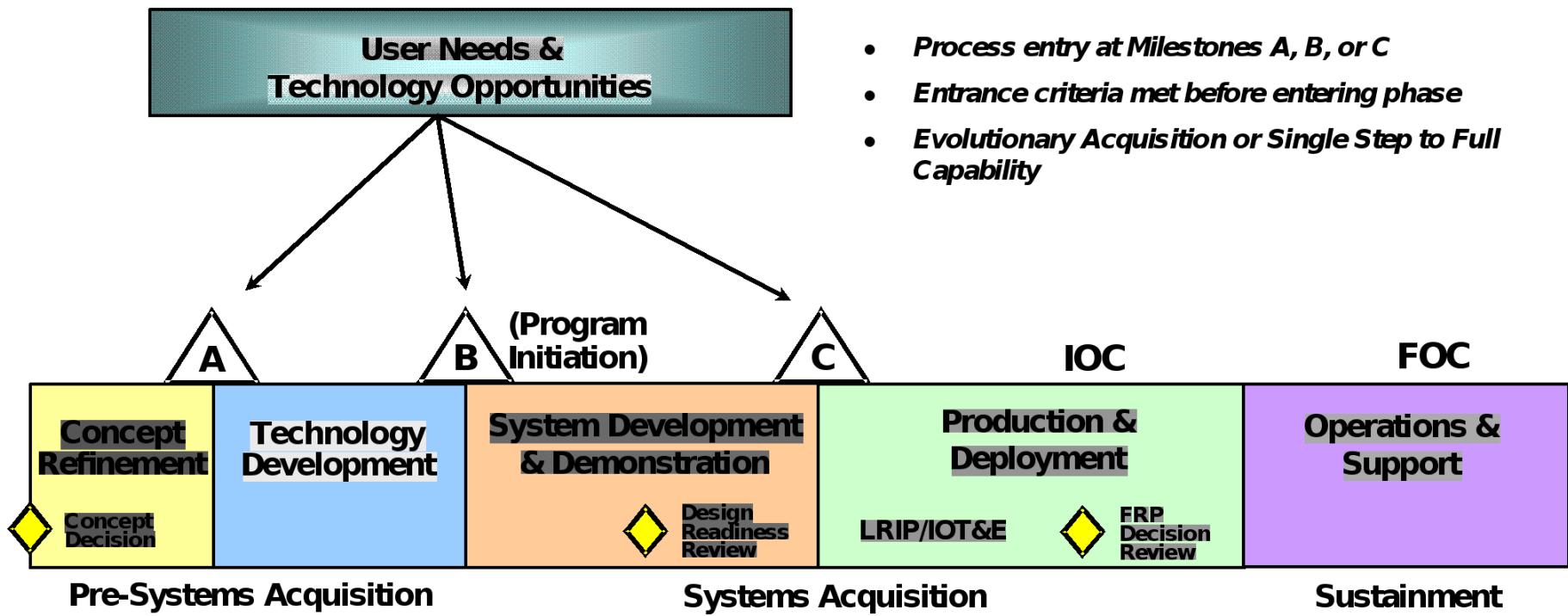
Warfighter set standards (measures/criteria)

Aircraft Tech Orders and JMEM

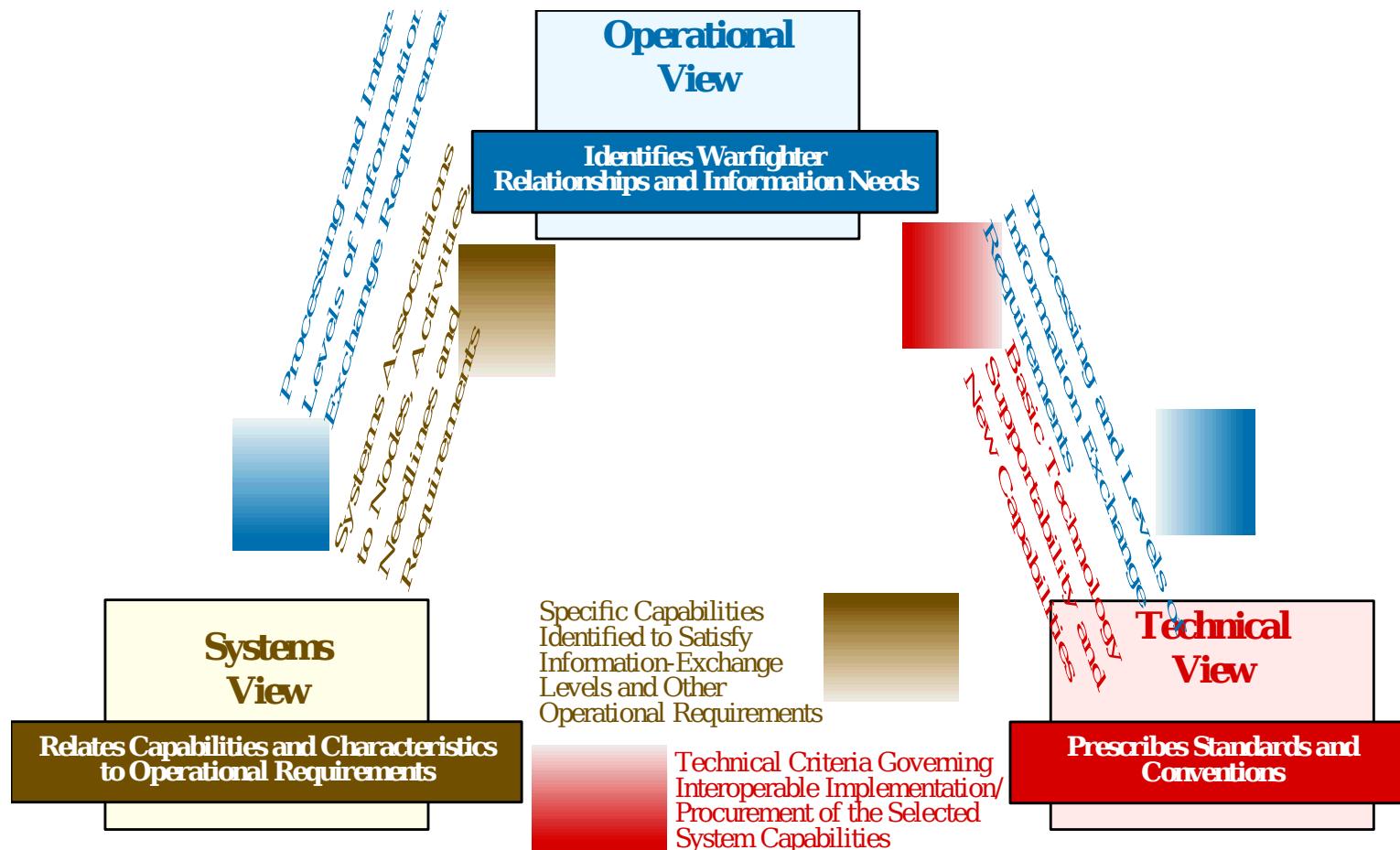
MTOE, TDA, O&O FCS systems book, etc.

Wings & Squadrons & Aircraft & Weapons

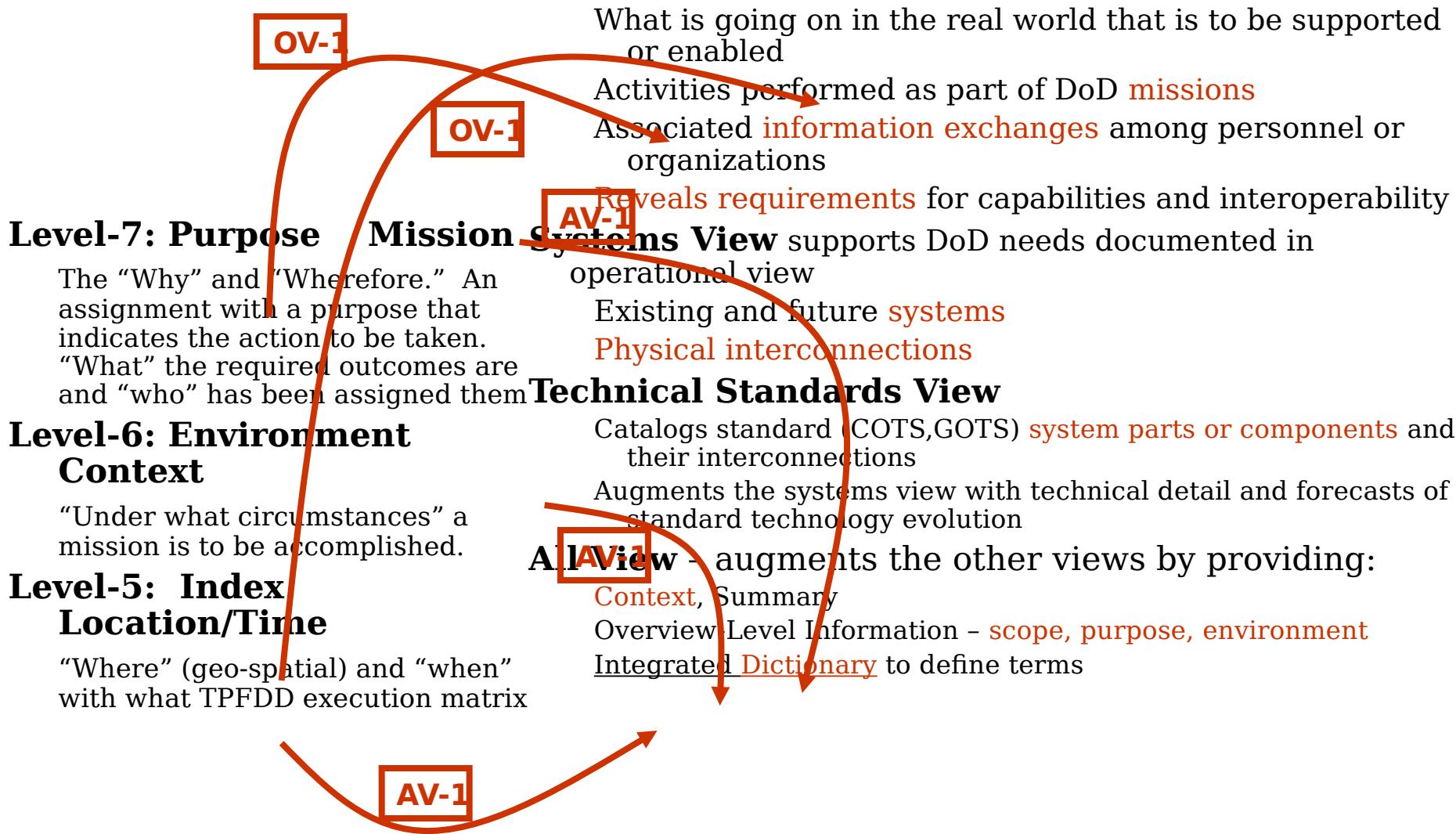
DoD 5000.2



DoD Architecture Framework



Mapping MMF to DoDAF Products



Mapping MMF to DoDAF Products

Level-7: Purpose

The “Why” and “Wherefore.” An assignment with a purpose that indicates the action to be taken. “What” the required outcomes are and “who” has been assigned them

Level-6: Environment Context

“Under what circumstances” a mission is to be accomplished.

Level-5: Index Location/Time

“Where” (geo-spatial) and “when” with what TPFDD execution matrix

Mission

OV-5

OV-5

OV-2

OV-3

OV-4

OV-5

OV-6a

OV-6b

OV-6c

OV-7

OV-8

OV-9

OV-10

OV-11

OV-12

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Mapping MMF to DoDAF Products

Level-7: Purpose Mission

The “Why” and “Wherefore.” An assignment with a purpose that indicates the action to be taken. “What” the required outcomes are and “who” has been assigned them

Level-6: Environment Context

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“Where” (geo-spatial) and “when” with what TPFDD execution matrix

Operational View

What is going on in the real world that is to be supported or enabled

Activities performed as part

Associated **information exchange** among personnel or organizations

Reveals requirements for capabilities and interoperability

Systems View supports DoD needs documented in operational view

Existing and future **systems**

Physical interconnections

Technical Standards View

catalogs standard (COTS, GOTS) system parts or components and their interconnections

Augments the systems view with technical detail and forecasts of standard technology evolution

All View - augments the other views by providing:

Context, **Summary**

Overview-Level Information - **scope**, **purpose**, **environment**

Integrated Dictionary to define terms

SV-1
SV-2
SV-3
SV-4

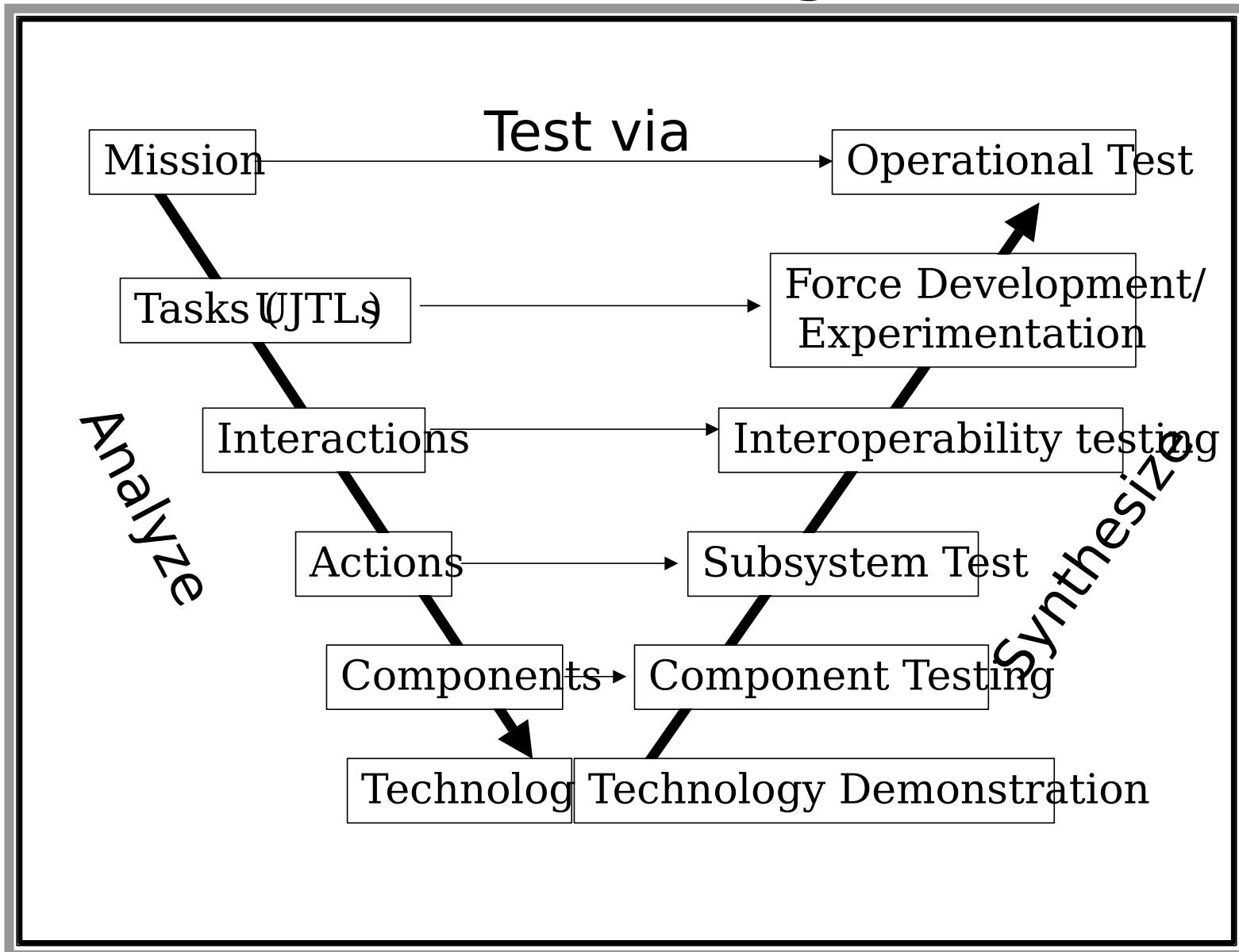
SV-5
SV-6
SV-7 missions
SV-8 among personnel or
SV-9

SV-11

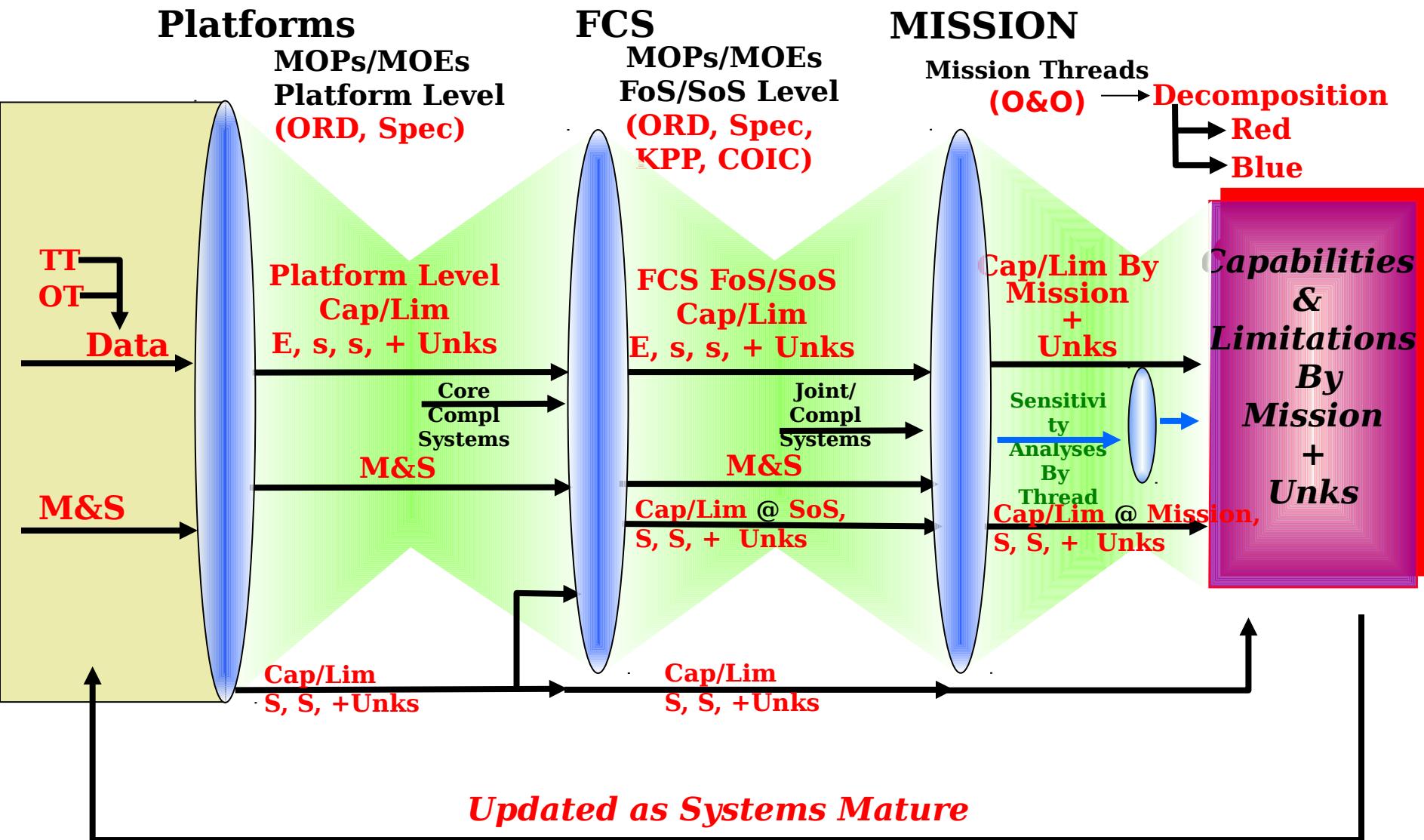
SV-10
SV-10
SV-10

TV-1
TV-2

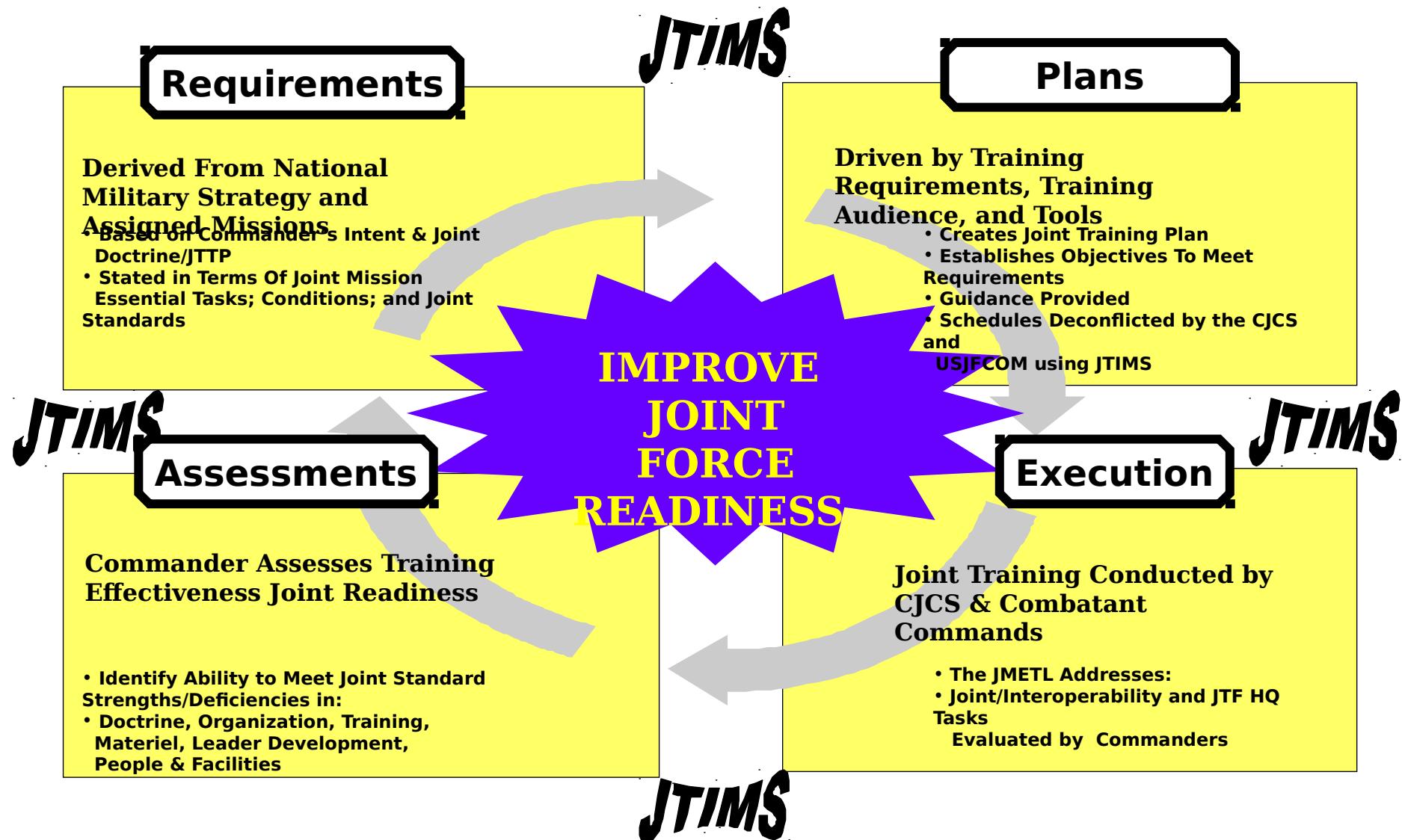
OT&E V-Diagram



FCS Evaluation Strategy

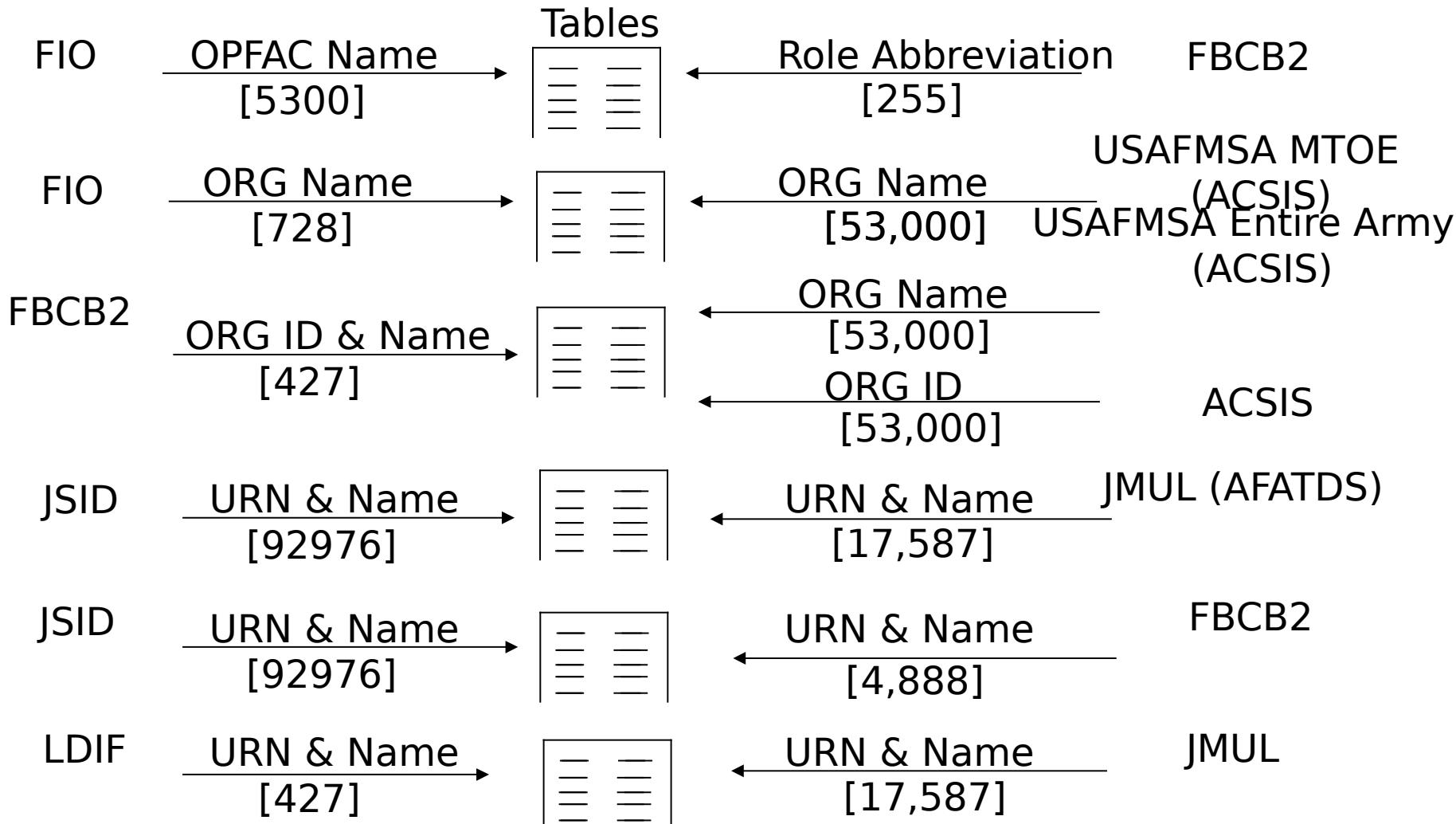


Joint Training System



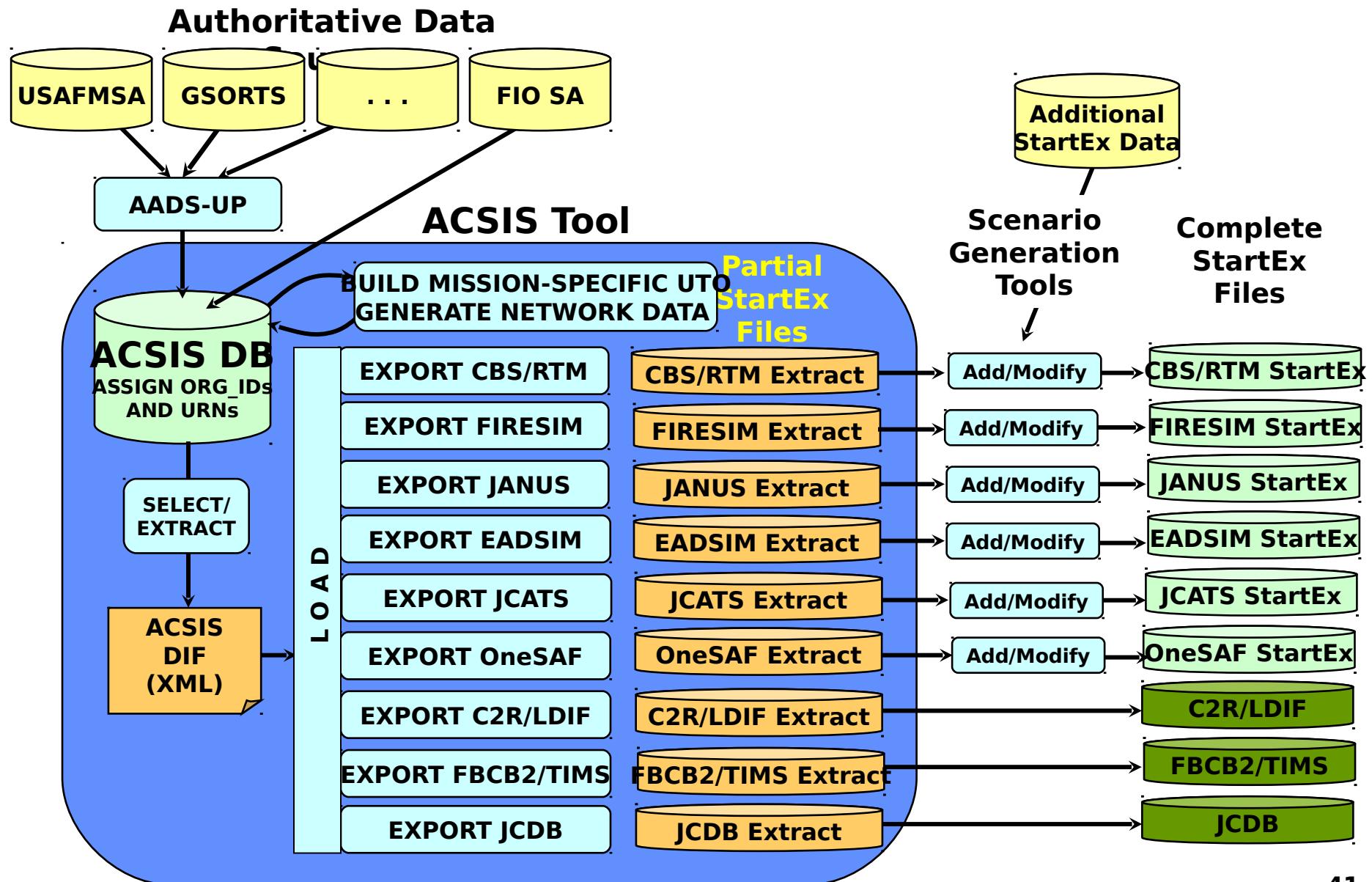
Application 2: Interoperability

Examples (1st CAV)



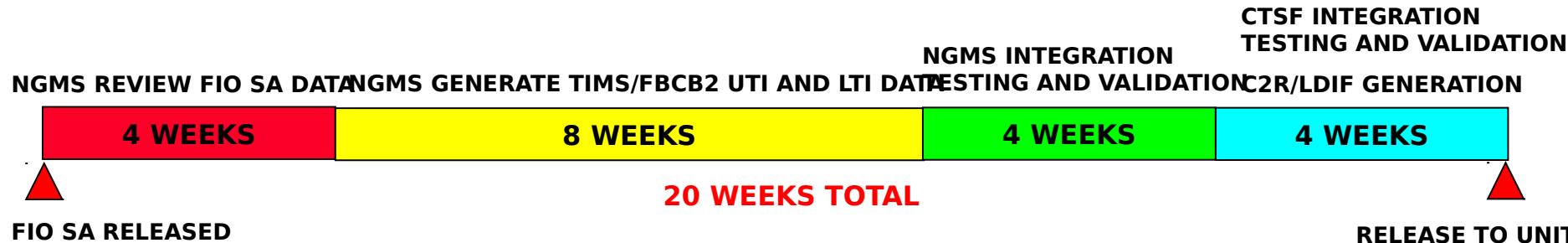
Notes: ■ Not a do once use many
■ Eliminate

ACSiS Architecture



Improved Integration and Interoperability between C4I and Simulations

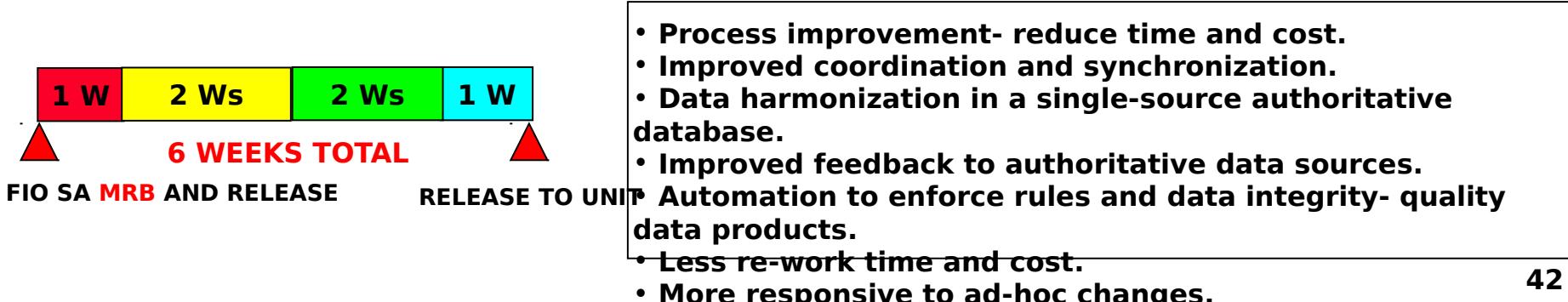
Current data product generation process without ACSIS or FBCB2/TOC Planner:



Process with ACSIS Phase I, TIMS/ACESIS interface, and FBCB2 manual process:



Process with ACSIS Phase II and FBCB2/TOC Planner Integration:



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*** Opinion

- **In the post-9/11 World:**
 - **The United States needs the capability to**
 - Counter new, emerging concepts and threats while
 - Retaining the overmatch to deter existing, conventional capabilities.
 - **Relative to extant U.S. warfighting capabilities, this requires:**
 - Strategic agility in hours/days, not weeks/months;
 - Joint netted lethality in close combat; and
 - Combined and noncombatant survivability in complex terrain.
 - **To achieve national security objectives over the long haul:**
 - The suitability of total DOTMLPF solutions (life-cycle ownership) and
 - The time to field capabilities must improve.

Context

- **A Blizzard of Guidance:**

- Rumsfeld, “Transformation Planning Guidance”, April 2003
- Wolfowitz, “Operation of the Defense Acquisition System”, DoD 5000.2, May 2003
- Wolfowitz, “Department of Defense Readiness Reporting System”, DoD Directive 7730.65, June 2003
- Myers, “Joint Capabilities Integration and Development System”, CJCSI 3170.01C, June 2003
- Wolfowitz, “DoD Architecture Framework”, Version 1, coordination draft DoD Instruction 8800.x, March 2003
- Daly, Miller, Seglie, and Wauer, “The Test and Evaluation Master Plan, an Operational Overview”, ITEA Journal, September/October 2003.
- Hollis and Bolton, “Future Combat Systems and Complementary Systems Coordination”, Department of the Army, November 2003.

Missions and Means Framework

Purpose: Provide a methodology for explicitly specifying the military mission and

quantitatively evaluating the mission utility of alternative warfighting

Doctrine, Organization, Training, Materiel, Leadership, Personnel, and

Facilities (DOTMLPF) services and products.

Objective: Provide a disciplined procedure to explicitly specify the mission, allocate

means, and assess mission accomplishment by:

- Unifying the warfighter, engineer, and comptroller understanding of missions and means.
- Accounting for traditional testing and evaluation factors and traditional warfighter expertise factors that constitute mission success.
- Being sufficiently credible, timely, and affordable to make hard decisions that stay made.
- Being consistent, concise, repeatable, and scalable.
- Providing a disciplined process to implement the Defense